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PTO/SB/08 (4/98)  
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# UTILITY PATENT APPLICATION TRANSMITTAL

(Only for new nonprovisional applications under 37 C.F.R. § 1.53(b))

Attorney Docket No.

TEW/204

First Inventor or Application Identifier

Medeiros, Wayne

Title

Emergency Vehicle Door Hazard Lights

Express Mail Label No.

## APPLICATION ELEMENTS

See MPEP chapter 600 concerning utility patent application contents.

1. ☒ \* Fee Transmittal Form (e.g., PTO/SB/17)  
(Submit an original and a duplicate for fee processing)
2. ☒ Specification [Total Pages **12**]  
(preferred arrangement set forth below)
  - Descriptive title of the Invention
  - Cross References to Related Applications
  - Statement Regarding Fed sponsored R & D
  - Reference to Microfiche Appendix
  - Background of the Invention
  - Brief Summary of the Invention
  - Brief Description of the Drawings (if filed)
  - Detailed Description
  - Claim(s)
  - Abstract of the Disclosure
3. ☒ Drawing(s) (35 U.S.C. 113) [Total Sheets **4**]
4. Oath or Declaration [Total Pages **2**]
  - a. ☒ Newly executed (original or copy)
  - b. ☐ Copy from a prior application (37 C.F.R. § 1.63(d))  
(for continuation/divisional with Box 16 completed)
  - i. ☐ DELETION OF INVENTOR(S)  
Signed statement attached deleting inventor(s) named in the prior application, see 37 C.F.R. §§ 1.63(d)(2) and 1.33(b).

\* NOTE FOR ITEMS 1 & 13: IN ORDER TO BE ENTITLED TO PAY SMALL ENTITY FEES, A SMALL ENTITY STATEMENT IS REQUIRED (37 C.F.R. § 1.27), EXCEPT IF ONE FILED IN A PRIOR APPLICATION IS RELIED UPON (37 C.F.R. § 1.28).

## ADDRESS TO:

Assistant Commissioner for Patents  
Box Patent Application  
Washington, DC 20231

5. ☐ Microfiche Computer Program (Appendix)
6. Nucleotide and/or Amino Acid Sequence Submission  
(if applicable, all necessary)
  - a. ☐ Computer Readable Copy
  - b. ☐ Paper Copy (identical to computer copy)
  - c. ☐ Statement verifying identity of above copies

## ACCOMPANYING APPLICATION PARTS

7. ☐ Assignment Papers (cover sheet & document(s))
8. ☐ 37 C.F.R. § 3.73(b) Statement ☐ Power of Attorney  
(when there is an assignee)
9. ☐ English Translation Document (if applicable)
10. ☒ Information Disclosure Statement (IDS)/PTO-1449 ☐ Copies of IDS Citations
11. ☐ Preliminary Amendment
12. ☒ Return Receipt Postcard (MPEP 503)  
(Should be specifically itemized)
13. ☒ \* Small Entity Statement(s) ☐ Statement filed in prior application,  
(PTO/SB/09-12) Status still proper and desired
14. ☐ Certified Copy of Priority Document(s)  
(if foreign priority is claimed)
15. ☐ Other: .....

16. If a CONTINUING APPLICATION, check appropriate box, and supply the requisite information below and in a preliminary amendment:

☐ Continuation ☐ Divisional ☐ Continuation-in-part (CIP) of prior application No: \_\_\_\_\_

Prior application information: Examiner \_\_\_\_\_ Group / Art Unit: \_\_\_\_\_

For CONTINUATION or DIVISIONAL APPS only: The entire disclosure of the prior application, from which an oath or declaration is supplied under Box 4b, is considered a part of the disclosure of the accompanying continuation or divisional application and is hereby incorporated by reference. The incorporation can only be relied upon when a portion has been inadvertently omitted from the submitted application parts.

## 17. CORRESPONDENCE ADDRESS

☐ Customer Number or Bar Code Label

or ☒ Correspondence address below

(Insert Customer No. or Attach bar code label here)

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Name (Print/Type)	Thomas E. Workman Jr.	Registration No. (Attorney/Agent)	43,288
Signature	<i>Thomas E. Workman Jr.</i>	Date	June 10, 1999

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**STATEMENT CLAIMING SMALL ENTITY STATUS  
(37 CFR 1.9(f) & 1.27(b))--INDEPENDENT INVENTOR**

Docket Number (Optional)  
TEW-204

Applicant, Patentee, or Identifier: Wayne Medeiros

Application or Patent No.: \_\_\_\_\_

Filed or Issued: \_\_\_\_\_

Title: Emergency Vehicle Door Hazard Lights

As a below named inventor, I hereby state that I qualify as an independent inventor as defined in 37 CFR 1.9(c) for purposes of paying reduced fees to the Patent and Trademark Office described in:

- ☐ the specification filed herewith with title as listed above.  
☒ the application identified above.  
☐ the patent identified above.

I have not assigned, granted, conveyed, or licensed, and am under no obligation under contract or law to assign, grant, convey, or license, any rights in the invention to any person who would not qualify as an independent inventor under 37 CFR 1.9(c) if that person had made the invention, or to any concern which would not qualify as a small business concern under 37 CFR 1.9(d) or a nonprofit organization under 37 CFR 1.9(e).

Each person, concern, or organization to which I have assigned, granted, conveyed, or licensed or am under an obligation under contract or law to assign, grant, convey, or license any rights in the invention is listed below:

- ☒ No such person, concern, or organization exists.  
☐ Each such person, concern, or organization is listed below.

Separate statements are required from each named person, concern, or organization having rights to the invention stating their status as small entities. (37 CFR 1.27)

I acknowledge the duty to file, in this application or patent, notification of any change in status resulting in loss of entitlement to small entity status prior to paying, or at the time of paying, the earliest of the issue fee or any maintenance fee due after the date on which status as a small entity is no longer appropriate. (37 CFR 1.28(b))

Wayne Medeiros

NAME OF INVENTOR

NAME OF INVENTOR

NAME OF INVENTOR

Wayne Medeiros  
Signature of inventor

Signature of inventor

Signature of inventor

June 10, 1999  
Date

Date

Date

Emergency Vehicle Door Hazard Lights  
ABSTRACT

An unacceptable number of police, fire, ambulance and other emergency personnel are killed or injured when they pull over to the side of the road and exit their vehicle. These accidents occur when passing vehicles are not aware that an occupant is exiting the vehicle, and these passing vehicles travel too close to the stopped emergency vehicle.

Inventions that automatically illuminate an open door call attention to emergency personnel responding to hostile situations involving gunfire, placing emergency personnel at risk. Safety features need to be easily disabled in order to protect the occupants as they exit an emergency vehicle in such hostile situations.

This invention places blinking hazard lights in the doors of an emergency vehicle so that when any door is opened, the exposed rear facing surface of the door contains a hazard light that is selectively activated in order to blink in concert with the emergency lights on top of the emergency vehicle. When the overhead emergency lights are not activated, but the headlights are on, the door hazard light is illuminated without any blinking. The door hazard lights are disabled when the "kill" switch for the dome light in the vehicle is set to disable the dome light.

## BACKGROUND OF THE INVENTION

### 1. Field of the invention.

The invention is a safety device which protects the occupant or passenger of an emergency vehicle as they alight from that vehicle.

5 Drivers and passengers of emergency vehicles are often called upon to respond to situations which require their immediate attention. In responding to the demands of their job, these individuals often exit their vehicle after parking it on the shoulder of a road. Safety devices have been introduced which draw attention to an opening door. These devices  
10 are seldom seen on emergency vehicles which must respond to hostile situations, because the very devices intended to protect the police officers or other responding individuals call attention to their presence, often endangering those individuals and subjecting them to harm from a hostile perpetrator.

15 This invention provides automatic protection when the responding emergency personnel want to be seen, and protects them from inadvertent disclosure when they do not wish to be seen.

### 2. Description of Prior Art.

Previous inventions have solved the problem of how to turn on a  
20 warning light on the side face of a vehicle's door, when that door is

opened. Some inventions have taught how such an indicator light might blink on and off, mimicking the turn signal of the vehicle.

United States patent 2,844,810 disclosed an invention which would call attention to an open door by selectively illuminating one of two indicator bulbs mounted in a housing in the vehicle door. The invention also disclosed a reflective strip, mounted on the side face of the door, which would reflect any illumination and call attention to the open door. The invention operated on a switch which automatically opened whenever the vehicle door was opened, in the same manner that dome lights are illuminated in modern vehicles today.

United States patent 4,972,173 disclosed an invention intended to illuminate the zone between the vehicle and the open door, while calling attention to the open door. This illumination was intended to assist the occupant as they exited the vehicle, while having a second purpose of always drawing attention to the open door.

United States Patent 5,193,895 disclosed an invention which is activated when a vehicle door is opened, and which features a low profile strip of light emitting diodes as the source of illumination. Like the inventions that came before it, this invention is automatically activated by a switch that is activated when the door is opened.

The prior art solves the problem of automatically illuminating a hazard light when a door is opened, but does not address the selection of how the illumination pattern will take on a meaningful pattern, depending on the emergency apparatus that is or is not enabled on the vehicle, nor

5 does it solve the problem of selectively disabling the illumination when such illumination would place the occupant of the emergency vehicle in personal jeopardy. This invention solves these problems, and offers both safety and protection to the occupants of vehicles so equipped.

## SUMMARY OF THE INVENTION

This invention provides a safety hazard light, located in that portion of the door that is only visible when the door is opened. The hazard light operates to provide a bright strobe effect whenever the overhead

5 emergency lights are being operated. The hazard light operates in steady fashion when the overhead emergency lights are not operating. The hazard light is disabled, and will not operate, whenever the vehicle is operating in a "silent" mode, such mode disabling the operation of the dome light in the vehicle, as well as any other indicators that would draw attention to  
10 the presence of the vehicle.

## DESCRIPTION OF THE PREFERRED EMBODIMENT

Referring to figure 1, the invention is shown from a top view of an emergency vehicle 1 equipped with emergency lights 2 on the roof of said vehicle. In this operating mode, the illumination devices 3 in the shell of the door 4 blink on and off at a frequency that approximates that of the rotating emergency lights that are activated on the roof of the vehicle.

Referring to figure 2, the invention is shown from a top view of an emergency vehicle 1 equipped with emergency lights 2 on the roof of said vehicle. In this operating mode, the illumination devices 3 in the shell of the door 4 illuminate in a steady fashion when the headlights 5 are activated, and when the dome lights in the vehicle are not disabled.

Referring to figure 3, the invention is shown in a perspective view, with the illumination devices 3 shown in the shell of the door 4.

Referring to figure 4, the circuit is shown with an electrical ground 6 attached to a switch 7 that is electrically open whenever the vehicle door 4 is closed, and which is electrically closed when the vehicle door 4 is opened as in the figure. A double pole electrical switch 8 enables the left 9 and right 10 headlights in the vehicle, when in the on position as shown. The other pole of the double pole electrical switch 8 is connected to the illumination device 11 contained in the shell of the door 4, so that



when the headlights 9, 10 are illuminated and the door 4 is open, current flows through the illuminating device 11 to ground through the switch 7. The power source for the headlights is the power supply to the vehicle 12. The power source to the illuminating device 11 is provided by a second double pole switch 13 which is fed with the power supply to the vehicle 14, which supplies the illumination device 11 through switch 8 on one pole, and which supplies the dome light 15, connected to ground 6 through the switch 7. The illumination device will illuminate in a solid fashion when the door 4 is in an open position, creating an electrical closed switch 7, when the headlights 9, 10 are on, and when the dome light 15 is not disabled.

A second door 16 controls a switch configured as switch 7, denoted as switch 17, enabling an illumination device 18 contained in door 16. One side of the switch 17 is tied to ground 6. A plurality of these networks and illumination devices can be configured in a vehicle, so that each door is equipped with its own illumination device enabled when the door is opened and the conditions described in the previous paragraph are met.

A double pole switch supplies power to the overhead emergency lights 20, 21 and to the mechanism 22 for rotating these lights. One side of this switch is tied to the electrical ground 6 of the vehicle. When in

the on position, power 14 is supplied through a second pole to a device 23 which alternately provides power and blocks power, so as to create a series of pulses of illumination through an illumination device 24 located in the shell of the door 4. The circuit is only completed when the door 4 is open.

A similar network routes power through a second independent device which provides pulses of power 25 which flow through an illumination device located in the shell of a second door 16, and then to ground through switch 17. The blinking illumination occurs whenever the door is open and the emergency overhead lights are enabled.

## BRIEF DESCRIPTION OF THE DRAWINGS

Figure 1 shows the invention from a top view, with the emergency overhead lights enabled and the invention enabled with a pulsing warning indication.

5        Figure 2 shows the invention from a top view, with the headlights on, the emergency overhead lights disabled, and the invention enabled with a steady warning indication.

Figure 3 shows a perspective of the illumination devices placed in the shell of the left front door of an emergency vehicle.

10        Figure 4 shows the electrical circuit which enables the invention to selectively provide warning illumination when the door is opened, and which allows the warning illumination to be disabled when the overhead dome light is disabled.

## CLAIMS

I claim:

1. A hazard safety light system for a motor vehicle comprising:

5 a door in a motor vehicle which is attached to the motor vehicle by means of one or more hinges, said door having a connecting surface that connects an outer shell of said door to the surface exposed to the passenger of said vehicle when the door is in the closed position, being perpendicular to the ground and clearly visible when said door is in the open position;

10 an optical device to be mounted in said connecting surface of the door;

15 a door-switch that detects when the door has been opened;

an overhead emergency light facility, commonly installed on emergency vehicles to alert motorists that an emergency vehicle is traveling on an emergency basis, when utilized with an audible  
20 siren;

an emergency-switch that activates the overhead emergency lights;

a flashing-circuit which intermittently causes the optical device to be illuminated, thereby creating a flashing illumination;

5

a set of motor vehicle headlights suitable for illuminating the roadway ahead of a motor vehicle;

a headlight-switch that enables the headlights;

a dome light which illuminates the interior of the motor vehicle when any door in that motor vehicle is opened;

a dome-switch that selectively disables the dome light; and,

a hazard-circuit which selectively causes the optical device to be energized so as to provide a hazard warning, whenever the door-switch detects that the door has been opened and the dome-switch has not disabled interior light, combined with the headlight-switch being set to enable the motor vehicle's headlights.

2. A hazard safety light system for a motor vehicle as in claim 1,  
wherein the hazard-circuit is replaced by a circuit which  
selectively causes the optical device to be energized through the  
flashing-circuit so as to provide a flashing hazard warning,  
whenever the door-switch detects that the door has been opened and  
the dome-switch has not disabled interior light, combined with the  
emergency-switch being set to enable the motor vehicle's overhead  
emergency light facility.

3. A hazard safety light system for a motor vehicle as in claim 1,  
wherein the hazard-circuit has all the functionality defined in claim  
1 plus the ability to selectively cause the optical device to be  
energized through the flashing-circuit so as to provide a flashing  
hazard warning, whenever the door-switch detects that the door has  
been opened and the dome-switch has not disabled interior light,  
combined with the emergency-switch being set to enable the motor  
vehicle's overhead emergency light facility.

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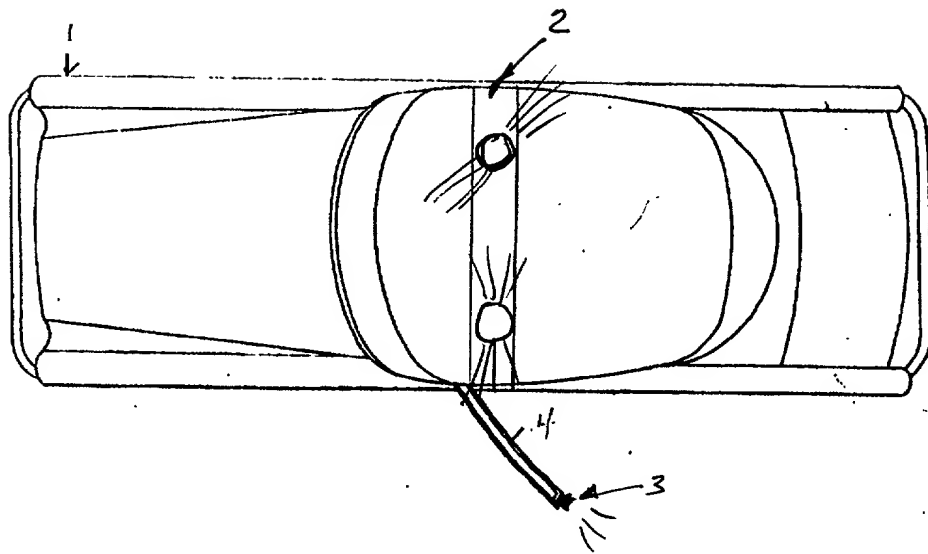


FIGURE 1

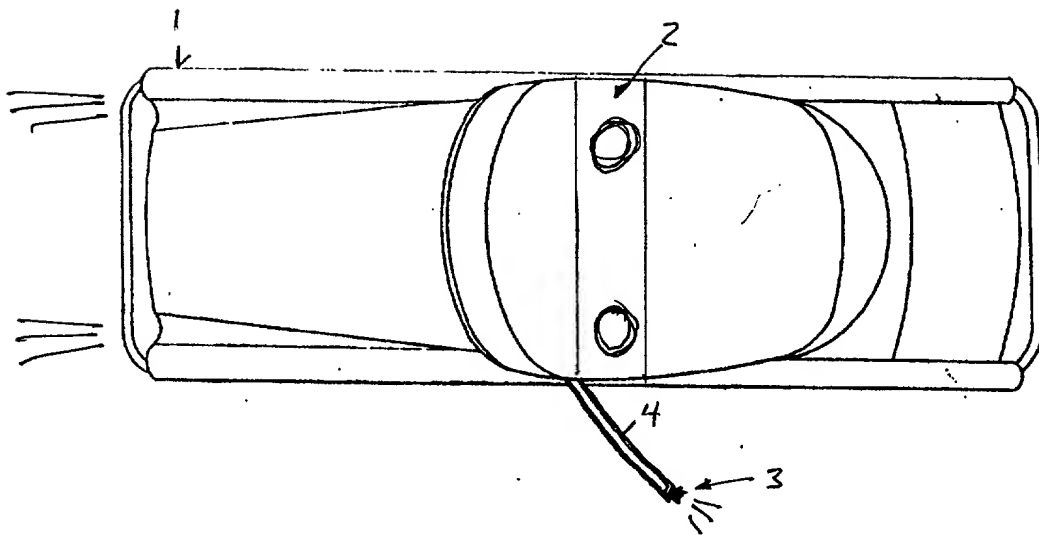


FIGURE 2



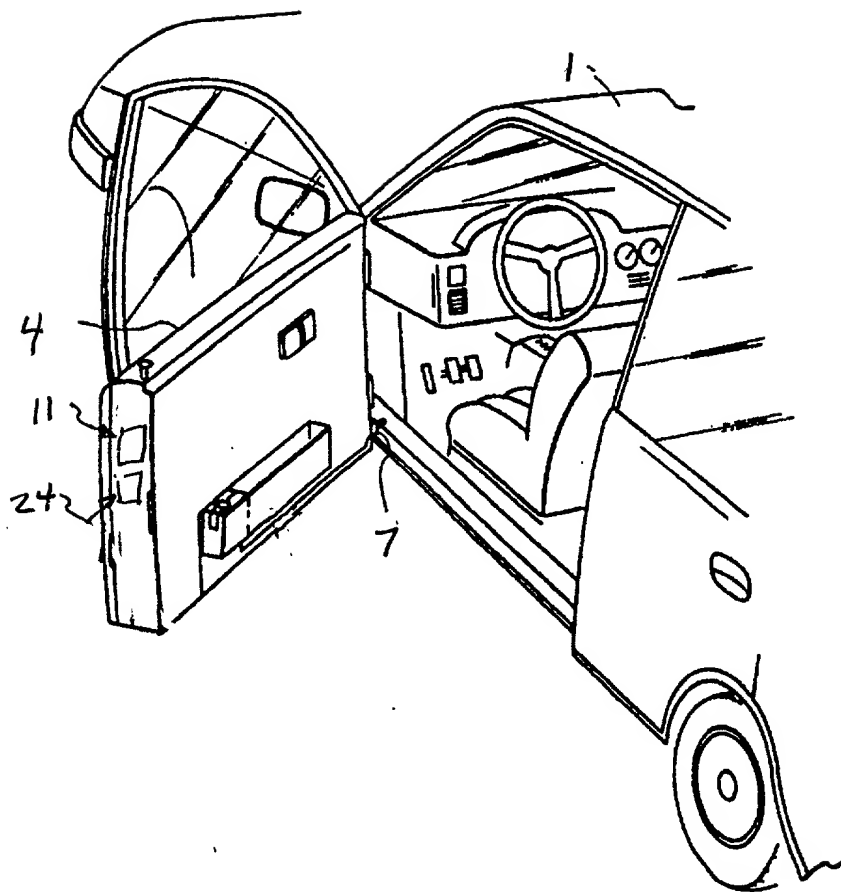


FIGURE 3

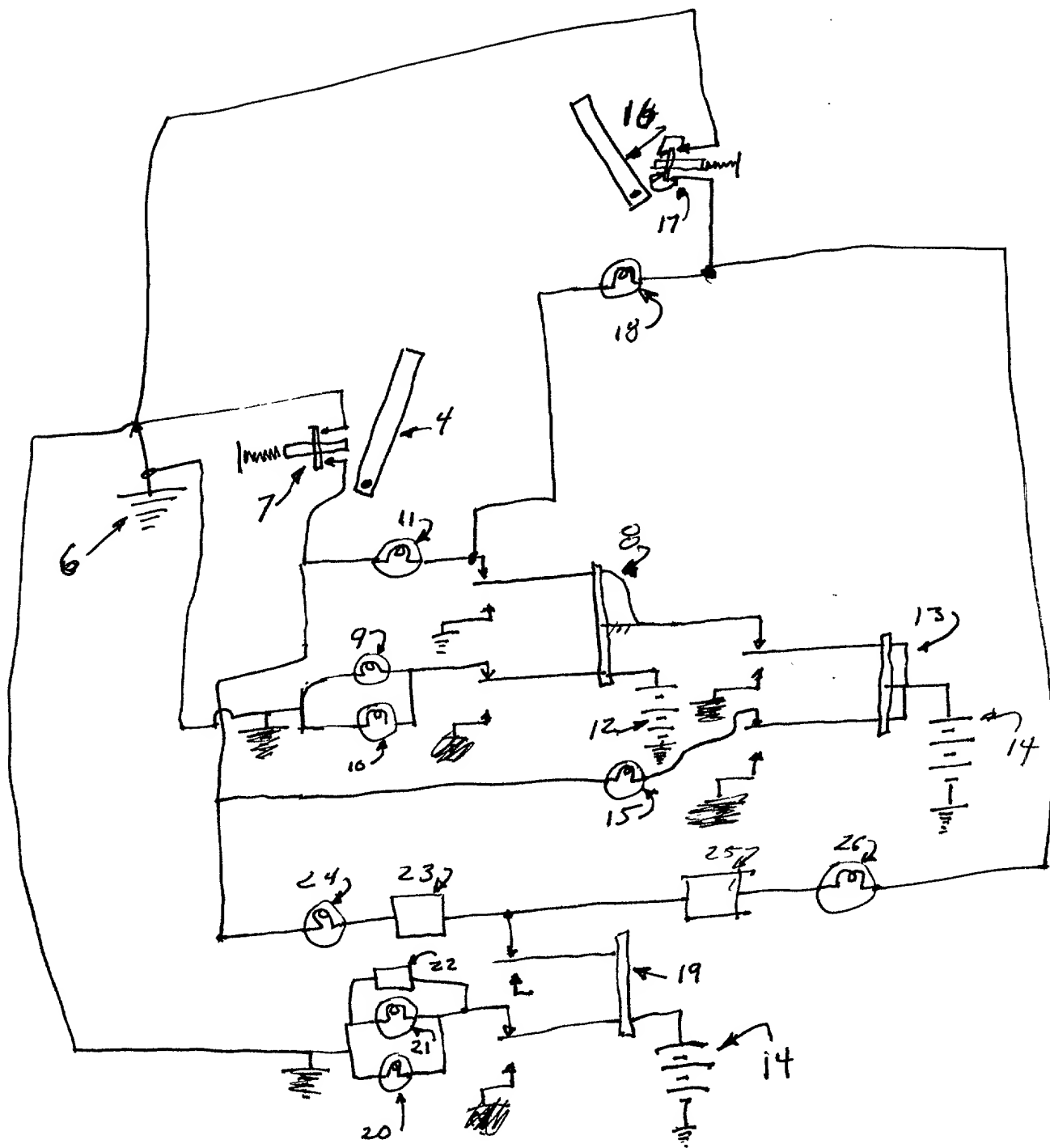



FIGURE 4

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<b>DECLARATION FOR UTILITY OR DESIGN PATENT APPLICATION</b> <b>(37 CFR 1.63)</b>  <input checked="" type="checkbox"/> Declaration Submitted with Initial Filing      OR <input type="checkbox"/> Declaration Submitted after Initial Filing (surcharge (37 CFR 1.16 (e)) required)	<b>Attorney Docket Number</b>	TEW/204
	<b>First Named Inventor</b>	Medeiros, Wayne
	<b>COMPLETE IF KNOWN</b>	
	<b>Application Number</b>	/
	<b>Filing Date</b>	
	<b>Group Art Unit</b>	
	<b>Examiner Name</b>	

As a below named inventor, I hereby declare that:

My residence, post office address, and citizenship are as stated below next to my name.

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled:

Emergency Vehicle Door Hazard Lights

the specification of which (Title of the Invention)

☒ is attached hereto

OR

☐ was filed on (MM/DD/YYYY) as United States Application Number or PCT International

Application Number and was amended on (MM/DD/YYYY) (if applicable).

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment specifically referred to above.

I acknowledge the duty to disclose information which is material to patentability as defined in 37 CFR 1.56.

I hereby claim foreign priority benefits under 35 U.S.C. 119(a)-(d) or 365(b) of any foreign application(s) for patent or inventor's certificate, or 365(a) of any PCT international application which designated at least one country other than the United States of America, listed below and have also identified below, by checking the box, any foreign application for patent or inventor's certificate, or of any PCT international application having a filing date before that of the application on which priority is claimed.

Prior Foreign Application Number(s)	Country	Foreign Filing Date (MM/DD/YYYY)	Priority Not Claimed	Certified Copy Attached?	
				YES	NO
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

☐ Additional foreign application numbers are listed on a supplemental priority data sheet PTO/SB/02B attached hereto:

I hereby claim the benefit under 35 U.S.C. 119(e) of any United States provisional application(s) listed below.

Application Number(s)	Filing Date (MM/DD/YYYY)	<input type="checkbox"/> Additional provisional application numbers are listed on a supplemental priority data sheet PTO/SB/02B attached hereto.

[Page 1 of 2]

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## DECLARATION — Utility or Design Patent Application

I hereby claim the benefit under 35 U.S.C. 120 of any United States application(s), or 365(c) of any PCT international application designating the United States of America, listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States or PCT International application in the manner provided by the first paragraph of 35 U.S.C. 112, I acknowledge the duty to disclose information which is material to patentability as defined in 37 CFR 1.56 which became available between the filing date of the prior application and the national or PCT international filing date of this application.

U.S. Parent Application or PCT Parent Number	Parent Filing Date (MM/DD/YYYY)	Parent Patent Number (if applicable)

☐ Additional U.S. or PCT international application numbers are listed on a supplemental priority data sheet PTO/SB/02B attached hereto.

As a named inventor, I hereby appoint the following registered practitioner(s) to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith:

☐ Customer Number  OR  
☒ Registered practitioner(s) name/registration number listed below

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Number Bar Code  
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Name	Registration Number	Name	Registration Number
Thomas E Workman Jr.	43,288		

☐ Additional registered practitioner(s) named on supplemental Registered Practitioner Information sheet PTO/SB/02C attached hereto.

Direct all correspondence to: ☐ Customer Number  OR ☒ Correspondence address below

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City	Taunton	State	MA	ZIP	02780
Country	USA	Telephone	(508) 822-7777	Fax	(508) 824-2820

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under 18 U.S.C. 1001 and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Name of Sole or First Inventor: ☐ A petition has been filed for this unsigned inventor

Given Name (first and middle (if any))		Family Name or Surname					
Wayne		Medeiros					
Inventor's Signature	<i>Wayne Medeiros</i>		Date	June 10, '99			
Residence: City	Taunton	State	MA	Country	USA	Citizenship	USA
Post Office Address	PO Box 364						
Post Office Address							
City	Taunton	State	MA	ZIP	02780	Country	USA

☐ Additional inventors are being named on the supplemental Additional Inventor(s) sheet(s) PTO/SB/02A attached hereto